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Author(s): J. R. Kantor

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CAN PSYCHOLOGY CONTRIBUTE TO THE STUDY OF LINGUISTICS?

IN the study of language the psychologist and the philologist must meet at some common point. There is no escaping this attitude. And yet an uncrossable chasm separates them.

Language, all the philologists agree, constitutes activity. Now is it not precisely the work of the psychologist to study action? And this includes language activity as well as every other type of psychological adjustment.¹ The great importance of language should make it stand out as a highwater mark in psychological study.

And yet it is not an unusual incident for the philologist to rule the psychologist out of the field of linguistics. Thus it is asserted that the conditions of cerebral activity, which are the main business of the psychologist, remain outside the field of the linguist.²

The expulsion of the psychologist from the linguistic garden is an old story. Recall the passage at arms between Delbrück and Wundt. The latter offers his two volume work on the psychology of language as an improvement over the Herbartian psychology. Delbrück delivers the coup de grâce in his declaration that, granting that

¹ As will appear in the sequel, two kinds of activity are referred to in this paragraph. The activities spoken of by the linguist are merely movements of the speech organs (including all anatomical parts relevant to speech.) For the psychologist an action is an adjustment, an adaptation to a stimulus.

² Vendreyes, *Language*, p. 66.

Wundtian psychology is superior to the Herbartian, for the linguist it makes no difference.³

Again, Jespersen, a philologist with a keen regard for psychological aids in linguistic scholarship, refers to the author of these two weighty tomes as "much less of a linguist than of a psychologist and whose pages seem to me often richer in words than in fertilizing ideas."⁴

Now let it be clearly understood that if the philologist refuses psychological coöperation, it is the psychologist who is to blame. For what is the psychological procedure in linguistics? Nothing more than an attempted explanation of philological facts by the medium of psychic causes and psychic processes.

Now the secret is out. Why traditional psychology cannot contribute to linguistic scholarship is transparent. Language can in no fashion be regarded as an expression of ideas, desires, or feelings. Nor is it a physical medium for "psychic" processes. Language must be treated as in a genuine sense behavior. The matter has been exceedingly well put by Weiss. "As a form of behavior, language represents biological, physiological, and social conditions; as a medium of expression, it assumes the existence of non-physical forces or types of psychical energy whose existence has not been adequately demonstrated. Therefore, when the psychologist finds himself confronted with the request to make a "psychological" explanation, or a "psychological" interpretation of a careful and detailed linguistic investigation, he is unable to add anything and

³ "Man sieht, für den Praktiker lässt sich mit beiden Theorien leben." Cf. *Grundfragen der Sprachforschung*, 1901, p. 44. Again, "Wohl sollen nach Wundt's Meinung die psychologischen Grundbegriffe, deren wir uns bis jetzt bewusst oder unbewusst bedient haben, durch andere ersetzt werden aber das Gebäude, dem so ein anderes Fundament untergeschoben werden soll, wird doch einen durchgreifenden Umbau nicht erfahren." *Ibid.*, p. 176.

⁴ Jespersen, *Language*, p. 98.

if anything is added it often only obscures the investigation.”⁵

The philologist is quite right in ostracizing the psychologist. As long as psychology concerns itself with mentalities it can add nothing to linguistics. Worse still, it distorts the facts. Here is a typical example of how traditional psychology describes language.

Speech begins with a mental process, an idea, feeling, or desire in the mind of A. Somehow this psychic material is converted into or transmitted to the motor nerves that control A's organs of speech. The motor processes with their phonic products constitute the means of conveying the idea or desire to B. This communicating or conveying of the mental processes is, however, not completed until the sound is conveyed to B's mind where the auditory perceptions are translated into the appropriate and intended ideas.

What an unsavory mixture of “mental” and “physical.” But this sort of thing need no longer be regarded as psychology. To understand the psychological fundamentals of language it is only necessary to turn to scientific psychology. Only when we do so can the psychologist and philologist work shoulder to shoulder. We go further. We insist that there must be psychological and philological coöperation in order that some of the problems of language be solved at all.

What are some of these issues? Before attempting a statement of scientific psychology, which can really be employed in the linguistic field, or in any other for that matter, we might suggest some problems requiring coöperative study.

Let us turn first to fundamentals. Why do philological descriptions of language always fall far short of what per-

⁵ *Language*, 1925, I, p. 52.

sons actually do when they speak? Observe this enormous paradox. Philologists agree that language must be human activity. In fact they say too that it must be mutual activity on the part of at least two persons. But unfortunately it seems inevitable that they should immediately shift from activity to symbols, fixed forms. Jespersen puts this matter perfectly.⁶ But he is mistaken in saying that it was only in former times that this fact was overlooked. It is just as true today as at any previous period that words and forms are treated as though they were things or natural objects with an existence of their own. Furthermore, this must be true just as long as language is regarded as expression and communication. Would it not be a contribution of psychology to indicate that speech is not merely the production of verbal-auditory symbols?

The first coöperative contact of the two sciences is therefore methodological. To understand the actual nature of language we must approach linguistics with adequate conceptual tools. When we arm ourselves with adequate psychological equipment it will be quite clear why grammar cannot cover actual language. For is it not a tribute paid to psychology when the philologist says that it is not unreasonable after all to claim that there are as many different languages as there are individuals?⁷ Instead of regarding grammar as a vessel which spills over, it should rather be considered as a net which, in a very inadequate manner, indicates the drift of the language at the time it passes through its meshes.⁸

Psychologists and philologists must jointly attack more

⁶ "The essence of language is human activity—activity on the part of one individual to make himself understood by another, and activity on the part of that other to understand what was *in the mind of the first*." *Philosophy of Grammar*, 1924, p. 17. We italicize the part of the statement that conceals the joker.

⁷ Vendreyes, *Language*, 1922, p. 235.

⁸ As we shall see later, psychological coöperation can only be useful in part of the linguistic field.

intimate problems also. What is a word and what a sentence? Is it true that a word is an independent or indivisible unit? Or must it be regarded as a dependent element existing only in a condition of relativity with other elements? Can these questions be solved by the philologist without psychological aid? Let us dig a little deeper. Are words exclusively the elements of a sentence which define or carry separate ideas, concepts, or conceptual relation, while the sentence as a whole has no conceptual significance whatever? Or, is the sentence the carrier of meaning and thus the essential linguistic element?

Such questions of course lead to the problem of the relationship between ideas and the linguistic elements which express them. What is a semanteme really? And what a morpheme? Is there a principle relating them? Is it possible that morphemes are genuine phenomena if they range all the way from affixational formatives, to order of semantemes in a sentence? Are ideas always carried by roots or semantemes? Can affixative morphemes perform this function as well as whole words? Is it possible to order linguistic elements in a hierarchy using importance or fundamentalness as a criterion? Do only semantemes represent basic ideas as compared with linguistic elements which indicate number, gender, or person? Do these confining schematisms do justice to the dynamic or living character of language?

Let us turn now to still more concrete issues. Cannot the psychologist help the grammarian to seize hold of the vital and fleeting elements of speech? What is the relation of tense to time? Can there be or should there be a definite relationship between the temporal existence of an event, the idea of it in the mind, and the linguistic expression of the idea? How can we reconcile a spoken historical or unhistorical present with English grammar?

Similar queries arise with respect to the parts of speech. One grammarian describes them one way, another gives them an entirely different description. Some philologists throw parts of speech entirely out of the linguistic field (Brunot); others hesitate only at the noun and verb (Sapir). Somehow this all means that the psychology of speaking must have a place in the linguistic system. There is no alternative.

A final example: the problem of interjections. How can this persecuted member of the linguistic kingdom be properly treated? Very few grammarians wish to include interjections in the grammatical scheme of things. And yet, like the scriptural poor, they are forever to be reckoned with. Do we not have here another symptom of the need to replace the affinity of language for formal logic, with a more serviceable liking for scientific psychology?

Now we are ready to suggest a reformulation of linguistic psychology. As we have already intimated, scientific psychology throws completely overboard the distinction of the mental and physical. Naturalistic psychology can find no merit in the division of mind and body. It can find no fact in nature describable as the translation of psychic states—ideas or what not—into the motions of lips and tongue. It is not within our province now to go into the origin of the misconceptions that lie at the basis of mind-body distinctions. Suffice it to say that they could only have arisen by misconceiving the psychological facts actually observed.

Psychology is the science of the reactions of individuals to stimuli. The two variables which the science demands as the minimal description of an event are persons and the objects to which they react. These objects may be persons or things. In many cases the reacting person is in direct contact with some object. Such is the situation when I

withdraw my hand from a hot object or when I observe a ball or person moving toward me.

Another distinct type of psychological event occurs when the reacting person is not in direct contact with the stimulus object. The reaction may occur in the absence of the object. Now that I am at home I can only think of or remember the picture at the museum. The difference in the reaction here is owing to the fact that something other than the picture serves as a substitute stimulus to call out my response to it.

Now language actions are also adjustments or adaptations to objects. With this addition. In the case of language we have a triadic relationship. That is, there are three variables in the linguistic event. One is the reacting person, the second is the object to which I refer by verbal or gestural response, and the third, some other person to whom I also react. The third variable may be the speaker himself. Language is the only type of psychological situation that involves such a triple situation.⁹

Mark this point well. Language is adjustment. It is activity. What is the nature of the adjustment? What happens when one speaks? In effect the speaker refers, and the hearer is referred, to some thing, person, or event. The event is the adjustmental stimulus which we have mentioned. For instance, A says to B, "the car is wrecked." What happens here is that A reacts to the event of the car-wrecking, and to B at the same time. The actions of A and B both constitute responses to the object. The interrelationship between the two persons and the event is made possible through a historical development which we may roughly sum up as learning to make lan-

⁹ This we say because in the thinking reaction the response is made directly to, though not in direct contact with, the stimulus object. The substitute stimulus is an intermediary, standing on a lower level than a direct stimulus. Cf. Kantor, *Principles of Psychology*, 1926, Vol. II, Chapter 23.

guage adjustments. Naturally there is involved here, besides the speaking reactions, responses of understanding, but these in no sense imply any ideas in the "mind" as we have already shown. Understanding the wrecking event is merely a more subtle form of reaction than actually participating in it. We may also say it is in a definite sense developed from it or from similar situations.

To assert that language is adjustmental action is to deny utterly two clearly related propositions. The first is that language is the expression of ideas. The fallacy of this conception has already been sufficiently revealed. No less false is the proposition that language consists of a set of symbols.

Scientific observation of language demands that we reject the belief that speech is primarily concerned with symbols. We must eschew both the conception that a linguistic fact is a symbol, and that it is a process of making symbols. We may well ask what is an act or a word the symbol of? The traditional answer is that it is a symbol of the idea that one has in "mind." If language is interpreted in this way it is incumbent upon those who accept this interpretation to show the existence of such ideas.

If such things do not exist then the symbol theory must be rejected. We repeat once more then that when A tells B of some event, he merely adjusts himself to two stimuli at once. His action may be facial or hand gesture. He may point to the object or he may say what he has to say verbally. But if words are only some of the ways of responding we can hardly think of even the words as symbols. Once more, language is what persons do by way of acting to persons¹⁰ and things simultaneously.

¹⁰ In extraordinary situations both stimuli may be things just as in many cases they are both persons.

That speech¹¹ is a process of making symbols is probably based upon the belief that when one speaks one does so primarily for the benefit of a hearer. But the speaker himself may be the hearer. For certainly one can talk to oneself. But in such a case are symbols necessary? Again, unless one actually makes written or printed material the criterion of language instead of action, it is incontestable that two persons can converse without any formal words. It is sheer perversion to deny the silent speech of lovers. In general, if language is adjustmental action then linguistic behavior is nothing but bistimulational or reference acts.

How can we apply these psychological facts to linguistics? In what way can it help us in our language studies, in what way aid us to rationalize or humanize grammar?

Probably the first application of linguistic psychology is in the separation of what is from what is not language. By using the criterion of adjusting oneself to certain things we should have an instrument for effectively handling language phenomena.

Is lexicology a part of grammar? The question can be decided in this way. If we regard the dictionary as a record of the various methods by which persons react to different things then lexicology certainly belongs to grammar. Accordingly the various dictionaries represent the comparative behavior manners of different human groups. On the other hand, if words in a dictionary are considered to be simply symbols standing for things, then lexicology finds no place in the grammatical field.

Of what aid can our psychological conceptions be within the domain of language proper? Let us look first to the

¹¹ At this point we may distinguish between speech as living language and other phases of language which deal with inert words.

organization of the different facts, some of which vary enormously from others.

How are syllables, roots, affixes, words, sentences, and phrases related? How can we arrive at a definite linguistic unit? The answer is clear. If language is a reaction of a person then the unit of speech is determined when we isolate a unit of reaction. Could a word ever be such a unit? Yes, so can a syllable, or even a simple gesture. When we deal with what a person does, we cannot arbitrarily place a limit upon the simplicity of language. We are then not influenced by formal, traditional phonic elements.

Incidentally, of course, phonology can never be separated from semantics. There is no sense to a discussion of sounds of a language irrespective of their meanings. In other words, what the person does or says represents his way of referring to a certain thing or event. To talk about sounds disconnected from meaning is therefore to attempt a separation between what the person does in the way of making sounds and the same action as a reference to a stimulus object.

Turning to a more concrete illustration, consider the grammatical problem of the future. The psychological study of language turns us away from arguments concerning what counters fittingly express the future, to the consideration of what a person does when he refers someone to events that are to occur or may transpire at some later time.

A refers B to the fact that he will go to town tomorrow. In a rational grammar the attempt of the philologist will be to explain how A performs this activity, how he adjusts himself to this situation. In effect he will describe what A does. That individual perhaps will utter a particular verbal formula. Namely, one labeled in the gram-

mar book as the future tense. But if A had not studied that particular grammar book or otherwise learned to adjust himself in that way he might use what the grammar calls the present tense. Whatever he does is well done.¹²

When we keep an eye open to the psychological aspects of language we can settle many grammatical questions promptly. Are the statements "he will arrive soon," "he may come," "I start early tomorrow," "he is going to come," future tense? Who can doubt it? In each we know beyond the shadow of a doubt that a person is reacting in linguistic ways to a future event. Surely we cannot say otherwise. Is not language in great part a method of interaction and social coöperation? Unless the grammarian is alive to the psychological aspects of language he is not a scientist describing what happens under certain circumstances but rather prescribing what should happen. In other words, he is making rules that few if any follow.¹³

Philological coöperation with psychology is no new thing.¹⁴ Regard for psychological happenings in the sense of describing what people actually do is a tendency revealed in the work of most grammarians. That is why they differ. But perhaps what is needed is a thoroughgoing explicit coöperation. When Fries¹⁵ criticizes the writers of school grammars who say that the one means of indicating future time is the combination of "shall" and "will" with the infinitive of the verb, is he not turning from formal grammar to behavior? This fact is apparent when this writer asserts that future is expressed in a

¹² In this sense it would be wrong to say that "it would be wrong to include a separate future in the tense system of the English language." Jespersen, *Philosophy of Grammar*, p. 50.

¹³ As for instance the Germans not using the future form of their grammar book.

¹⁴ Think only of the works of Brunot, *La Pensée et la Langue*, 1922, and van Ginneken, *Principes de linguistique Psychologique*, 1907.

¹⁵ *Language*, 1927, 3, 87-95.

variety of ways. Various sentences containing the words, desire, mean, expect, and intend, denote the future. This suggests an examination of how persons actually do react to future events. But the suggestions are limited after all by conventional linguistic forms. Regard for behavior does not go far enough.

Does the statement "he should go tomorrow" lose its function of expressing futurity because it also expresses obligation or desire? We submit that it does not. Would it not clarify the problem of grammar to take account of what the speaking person does in the exact circumstances involved? If so, then we might design our grammars to include reference to time, obligation, destiny, uncertainty, probability and all other specific conditions which stimulate us to react to them linguistically. In the fact that in our grammatical forms we cannot separate future from volition, for example, we might be content to discover an illustration of the truth that language is not the use of symbols. When persons speak they do not signify, but they respond to things.

The study of direct and indirect speech casts considerable illumination upon the psychological factor in language. The comparison of direct and indirect speech presents us with two problems. In the first place, how do these facts comprehended under the terms direct and indirect speech connect with the facts of language in general? What is there unique about such phenomena? Do we not have here merely the fact that a person reacts to another person's reaction? Namely, in direct and indirect speech the adjustment stimulus is some other person's response. From the psychological standpoint it is clear that the grammarian makes too sharp a separation between A telling B about C's action of throwing something, and C's action of saying something. Is not the grammarian too much in-

fluenced here by literary quotation? Abiding by our psychological principles does it make any difference whether A refers to C's crude action of throwing something, his thinking of throwing that object, or his speech concerning the throwing act? Whichever act we are concerned with, does it make any difference whose action is referred to? Is it material whether A tells B of the action of C, B, or himself?

The second problem is to differentiate between direct and indirect speech. What is the essential difference between them? Direct quotation, we answer, consists in an exact duplication of what A himself or some other person has previously done. This is exactly the same situation as the defendant in a law trial being put through the activities that he is accused of having performed. But this reference to some former action need not be so complete in its details. A may attempt to inform B only what was done in effect, but not actually. This is the indirect quotation of the grammarian. In fact he might merely give linguistic suggestions as to what C has done. This is essentially a descriptive reference. It is not living over, or imitating an action but relating or narrating it.

The distinction between direct and indirect speech is then a distinction between responding to an event by reenacting it or by simply narrating it. We have here merely two forms of adjustmental acts. Since the grammarian deals only with verbal action the only complete reenacting behavior can be verbal. But speech need not be so limited. It must not be forgotten either that one might speak of what one imagines someone else has said or will say. In this case and in referring to what one thinks, or has thought, the amount of enactment is seriously limited.

Both direct and indirect speech therefore consist of de-

degrees of action. A may reenact for B the whole of C's or his own previous linguistic behavior, or he may only repeat a part. Similarly, indirect speech can cover an enormous series of narrational actions. These will range from complete description to vague suggestion. It is not sufficient to divide indirect speech into two types merely on the basis of the presence or absence of a fixed expression. It is not doing justice to the facts in the case to say that indirect speech is "dependent" when it is preceded by some verb and "represented" when it is not.¹⁶ If there is any value in the suggestion just made the importance of considering the psychological aspects of language is manifest.

As a final attempt to indicate the nature of the philological and psychological coöperative enterprise we may discuss briefly the classification of speech. What is meant by types of language or types of utterance? How many moods are there and how are they differentiated? Questions such as these suggest not only the desirability of attending to the psychological implications but indeed the necessity of so doing.

We suggest that when language is behavioristically treated the grammatical difficulties of classification disappear. All that is required is to take into consideration the adjustment of the speaker with respect to the adjustment and auxiliary stimuli. Is the speaker telling the hearer what he plans, desires, or hopes to do with respect to the adjustment object? Or does he tell the hearer what to do in a certain way, with respect to the adjustment object, at a certain time and place. Again the emphasis might be upon the adjustment stimulus object. Thus the

¹⁶ Cf. Jespersen, *The Philosophy of Grammar*, p. 290. Incidentally, taking into consideration the psychological aspects here dispenses with the difficulty of naming the "two" kinds of indirect speech.

speaker inquires about it, comments upon it, promises to do something with respect to it, etc.

Naturally the emphases upon the three variables are combined in numerous ways. The speaker may threaten to do something to the hearer unless he does something to the adjustment object.¹⁷ Or he may warn the hearer that the adjustment stimulus object whether a thing or person will do something to him. In terms of these variables in a genuine behavior situation it is submitted that all language types can be effectually organized.

Of course it is essential to make as many classes as there are different forms of action. There is, however, a serious drawback here. To make too many classes is to have no classification. At least no usable one. Here the question arises whether a formal list of types is necessary. Do we need anything more than a principle of defining a linguistic action or situation?

We propose that this would be sufficient. For, to attempt to make classes in some other way never has resulted in a satisfactory solution of the classification problem.¹⁸ And on the other hand, by using this method the results will be commendably descriptive.

Does our suggestion overemphasize behavior? Hardly, for the grammarian in this situation has all but come upon the behavior method. The very term "mood" implying intention, reaches toward a psychological principle. A mentalistic psychology of course. Now all we need to do is to replace the mentalistic by behavioristic psychological principles.

An illustration. Let us agree that the imperative mood names the action in which A accomplishes something through the agency of the hearer B. This illustration ad-

¹⁷ Which may of course be the hearer or speaker.

¹⁸ Jespersen, *The Philosophy of Grammar*, Chapter 23.

mirably describes a psychological adjustment. "Get that book" is the manner in which A performs a response to the book that he cannot or will not do himself. It is immaterial what the actual stimulus object is, or exactly how the hearer's activity is accomplished. The action may concern the hearer himself as when A says "Get out of here." Also the adjustment A performs, may concern the helping of somebody to do something or permitting him to do something. These could be put in different coördinate classes or in suitable subclasses.

The employment of the psychological principle will enable us not only to classify speech but also to show the inadequacy of organizing language on a formal basis. It will obviate such a statement as "requests are very often expressed by other means than the imperative."¹⁹ Since our principle emphasizes the form of adjustment, "another bottle," "*wollen wir gehen*," are imperative responses just as much as "come here" or "throw that ball." In fact keeping close to our agreement as to what we should mean by the imperative the most obvious grammatical indicative must be classified as a behavioristic imperative. For example, since A knows that merely to tell B that C has cut down his favorite tree means that B will do something to C, a condition which A wants to bring about, A's saying "C has cut down your beech tree" is an imperative action or sentence. Keeping close to the adjustmental situation is a definite feature of the psychological principle. And so when A knows that B's threat is vain, he will say, "Go on, shoot me." But despite the form this is no imperative.

Our suggestions are at an end. To study living language psychological principles are required. So much then we may regard as established. Now a new problem arises. How far can this psychological coöperation go?

¹⁹ Jespersen, *Op. cit.*, p. 314.

Obviously enough no grammarian is a despotic prescrip-tionist. But on the other hand, must we not after all respect certain fixities, certain landmarks? Such a query can be answered by another question. If the data at hand offer no limits, provide no barriers, shall we introduce some arbitrarily? By no means. Unless indeed we regard our task as something other than the description of speech or language.

But as a matter of fact the behavioristic attitude toward language takes away no fixity, removes no principle. It merely substitutes a principle based on the nature of speech for one based on dead phonic patterns. Instead of describing speech on the basis of what persons have done as recorded in various writings, we propose to describe how persons actually do behave. The psychological principle merely replaces crystallography with conduct.

Nevertheless there are limitations to the conjunction of philological and psychological effort. There are several considerations to be urged in favor of a separation of philology and psychology.

In the first place, granted that language is not symbolism, but after all is language not formal? If by formal we mean conventional, nothing is more certain than that language is essentially formal.

Humanity marches in battalions. The fact is that patterns appear in the linguistic behavior of persons. Language adjustments are performed according to a code. One reacts linguistically according to fashion exactly as in eating, wearing clothing, or in performing adornment responses. Of course battalions are divided off into companies, and platoons, so we have an elaborate hierarchy of dialects, sub-dialects, and colloquial languages. Much commonness and regularity exist in language behavior. But conventions are not absolute things, though the gram-

marian is sometimes led to think so. When we respect the distinction between symbols and conventions we are enabled to do justice to the fact both (1) that men are organized into groups and (2) that always it is the persons in the groups who perform linguistic behavior. Since the exigencies of living break down group barriers no ultimate limits can be set to the way one will speak. It is precisely the function of the student of the psychological aspect of language to observe the constant breaches of convention. We must submit then that taking account of conventionality in language does not detract much from the coöperative enterprise.

Another consideration indicates a genuine separation of the two types of students. The realm of linguistics is enormously large. Some parts of it, and those perhaps not the least important, are cultivated without psychological tools. There is the whole subject of history. Language must here be handled as dead material. There are corpses to exume. Fossils to measure and compare. There are linguistic remains of all sorts to be investigated. Here the psychologist has nothing to offer. He merely follows the philologist at this point and connects with him only by drawing inferences as to how people in the past generally have behaved. The philologist here definitely leaves the psychologist behind. The latter may follow at a distance, observe the philologist in action, and learn what he can from the information the latter discovers. Only at the point of living language²⁰ can the psychologist and the philologist work together.

²⁰ Similarly most parts of the psychologist's field have no interest for the philologist. Psychology is not restricted to the study of language. Even with respect to language the philologist is not interested in what the brain does and what images are. Only, the philologist says to the psychologist, "do not mislead me into believing that the brain is a kind of thing which mediates between non-spatial psychic ideas on the one hand, and the world of things and actions on the other."

But this is not all. The grammarian may also be interested in fine speech or writing. Here we have an intentional departure from the description of speech to turn to the establishment of norms. Grammarians in this sense set patterns that they believe ought to be followed. The study now is usage or aesthetic. As such it differs from the interest in language as sheer human behavior or social intercourse. And so while the grammarian is still concerned with behavior he is now beyond the range of simple psychology. No longer limited by psychological rules he is governed by the canons of etiquette or aesthetics.

We conclude. Linguistic coöperation between philologist and psychologist is both possible and necessary. But to this coöperation there are definite limits. Our interest, however, has been merely to examine the psychologist's expulsion from the Eden of language. When the scene shifts to the grammarian's quarrying of stones to build historical pyramids, or to his exodus from the psychological Egypt to enter the promised land of aesthetics, the connection between the psychologist and philology takes on an entirely different form.

J. R. KANTOR.

UNIVERSITY OF INDIANA.